

CLAIMS

1. (Currently Amended) A method of allocating processing capacity of processors in a radio network controller, the method comprising the steps of:

(a) monitoring for a message of a connection between a user element and a network;

(b) determining whether the message is (i) a call set-up message from the user element or (ii) an allocation message from one of the processors; and

~~(c) allocating~~; (c1) if the message is a call set-up message, then allocating one of the processors to the connection in accordance with a load-balancing algorithm; [[,]] and

(c2) if the message is an allocation message, then allocating a set of spreading codes to the connection with the same spreading factor and sending the set of spreading codes to a call-processing application on the processor that sent the allocation message.

2. (Previously Presented) The invention of claim 1, wherein step (c1) further comprises the step of providing, by the one of the processors, a call-processing application to the connection.

3. (Previously Presented) The invention of claim 1, wherein step (c1) further comprises the step of measuring a utilization of each of the processors.

4. (Previously Presented) The invention of claim 3, wherein step (c1) allocates the one of the processors based on a call-context amount per CPU load-balancing algorithm.

5. (Previously Presented) The invention of claim 1, wherein step (c2) further comprises determining the set of spreading codes with the same spreading factor.

6. (Previously Presented) The invention of claim 5, wherein, for step (c2), the set of spreading codes depends on the number of legs for soft-handover/soft-handoff of the connection.

7. (Original) The invention of claim 1, wherein, for step (a), the message of the connection is of a network operating in accordance with at least one of a General Packet Radio Service (GPRS) standard, Universal Mobile Telecommunications Systems (UMTS) network standard, and a Code Division Multiple Access (CDMA) 2000 standard.

8. (Original) The invention of claim 1, wherein the method is implemented in a processor of a radio network controller.

9. (Currently Amended) A network comprising a radio network controller (RNC), the RNC comprising:

means for monitoring for a message of a connection between a user element and a network;

means for determining whether the message is (i) a call set-up message from the user element or (ii) an allocation message from one of the processors; and

means for allocating: ~~if the message is a call set-up message~~, one of the processors to the connection in accordance with a load balancing algorithm, if the message is an allocation message; and

~~if the message is an allocation message~~, means for allocating a set of spreading codes to the connection with the same spreading factor and sending the set of spreading codes to a call-processing application on the processor that sent the allocation message, if the message is an allocation message.

10. (Currently Amended) A computer-readable medium having stored thereon a plurality of instructions, the plurality of instructions including instructions which, when executed by a processor, cause the processor to implement a method for allocating processing capacity of processors in a radio network controller, the method comprising the steps of:

(a) monitoring for a message of a connection between a user element and a network;

(b) determining whether the message is (i) a call set-up message from the user element or (ii) an allocation message from one of the processors; and

~~(c) allocating~~; (c1) if the message is a call set-up message, then allocating one of the processors to the connection in accordance with a load-balancing algorithm; [[,]] and

(c2) if the message is an allocation message, then allocating a set of spreading codes to the connection with the same spreading factor and sending the set of spreading codes to a call-processing application on the processor that sent the allocation message.

11. (Previously Presented) The invention of claim 4, wherein the call-context amount per CPU load-balancing algorithm comprises:

determining an average number of calls per processor;

weighting the average number of calls per processor by a total call capacity of the processor; and

selecting the processor with the smallest weighted call average.

12. (Currently Amended) A method of allocating processing capacity of processors in a radio network controller, the method comprising the steps of:

monitoring for a message of a connection between a user element and a network; and

allocating, if the message is a call set-up message, one of the processors to the connection in accordance with a load-balancing algorithm based on a call-context amount per CPU load-balancing algorithm, wherein the call-context amount per CPU load-balancing algorithm comprises:

determining an average number of calls per processor;

weighting the average number of calls per processor by a total call capacity of the processor; and

selecting the processor with the smallest weighted call average.

13. (Cancelled)

14. (Previously Presented) A method of allocating processing capacity of processors in a radio network controller, the method comprising the steps of:

monitoring for an allocation message of a connection between a user element and a network; and
allocating a set of spreading codes to the connection with the same spreading factor;

wherein the set of spreading codes depends on the number of legs for soft-handover/soft-handoff of the connection.